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ANALYZES SHORICOMINGS OF MOSCOW MACHINE TOOL PLANT IMENI ORDZHONIKIDZE; SUGGESTS REMEDIES

HITS IRREGULAR FLANNING, SUPFLY SCHEDULES, OTHER DEFECTS -- MOSCOW, Moskovskaya Pravda, 2 Sep 51

For a long time the Moscow Machine Tool Building Plant imeni Ordzhonikidze has not been fulfilling its program and has not met the planned indexes for labor productivity and cost of production. One reason for this is the irregular planning of the enterprise's activities.

In 1946, the plant ceased being a large-series production enterprise and converted to the output of complex special machine tools and conveyor and automatic transfer machine lines, which constituted up to 80 percent of the program. It stopped producing for the general consumer and began filling specific orders for many customers, each of whom presented his own requirements.

The technical equipment of the plant permits the manufacture of machine tools of any complexity within given dimensions. However, the shops are allowed very little time for the manufacture of parts, and the assembly and setting up of machine tools.

In filling orders, the last-minute speed-up procedure with all its consequences has taken root. The customer cannot place his order for a machine tool before he receives funds for it. Under ideal conditions, this could happen only in January. As experience has shown, at least 12 months are spent in drawing up an order and completing negotiations. Consequently, under the most favorable conditions, only by the end of February can the SKB-1 (Special Design Bureau) of the Ministry of Machine Tool Building begin to design a machine tool. Designing takes 5-6 months and sometimes longer. Thus, $6\frac{1}{2}-7\frac{1}{2}$ months are spent on paper work alone.

After that, the order is sent to the plant, where preparations for production are made. Preparations include developing technology, building a model, placing orders for castings, metal and ready-made parts, etc. Another 22-3 months go by in this way. Finally, only $2\frac{1}{2}$ -3 months remain for the shops to manufacture the

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machine tool. The fact is that by 1 August 1951, the plant had not yet received all blueprints for the machine tools which it was to produce during the year. When, then, can preparations for their manufacture be made?

The rush work which ensues is detrimental to smooth and efficient operation. The plant's shops feel this constant pressure since month after month they are occupied with remodeling and alterations.

With very few exceptions, the SKB-1 introduces design changes in machine tools during the entire period of their manufacture and even later than the specified date of their release. For example, in the design of the IT 300-3C4 automatic transfer machine line, the SKB-1 submitted changes over a period of 5 years! In the 1A 692-1A 700 line, which should have been completed in February 1951, 29 changes were proposed on 12 March. From 19 to 30 July 1951, the shops received 200 assignments in connection with changes prescribed by the SKB-1. Of several dozen special machine tools which the shops were assembling in August, only two escaped being changed.

Frequently, the modifications suggested by the designers cannot be made quickly because they are tied in with the manufacture of absolutely new parts, or with the carrying cut of technological processes requiring dismantling of the machine.

It is understandable that in the designing of a new, complex precision machine tool, a designer can make a mistake, or that having submitted plans for execution, he can later find a more suitable solution. Such shortcomings cannot be criticized. However, exceptions must be made in the case of arithmetical errors in calculations, nonconformity of sizes of mating parts, etc., which occur as a result of carelessness and excessive rushing.

The carelessness which is causing so much unpleasantness to shop workers remains unpenalized, and rishing is even encouraged. For example, the SKB-1 designers are awarded bonuses for submitting blueprints ahead of schedule, even though many of them are revised afterwards.

Thus, the first circumstance determining the nature of all production planning at the plant is the lack of a necessary break between planning and the beginning of production, as a result of which there is also no break between the manufacturing of parts and assembly. Machine shops, as a rule, receive castings and blanks in the same month, and even on the same day on which they must be machined; the assembly workers are supplied with "hot" parts, directly from the machine tools.

Since the plant does not series-produce its machine tools, it does not have spare parts in stock. It must make new parts to replace defective ones, thus creating a delay in assembly.

Serious shortcomings exist also in planning for the supply of shops. The trouble here is that there is not coordination between the planning of supply and the actual production requirements. This leads to an inevitably large stock of materials. On 1 August, for example, the cast iron in the plant's warehouses was double the specified norm. The plant supplies the shops directly from boxcars (s koles). Even Glavanab (Main Administration of Supply) of the Ministry of Machine Tool Building USSR at times does not supply the plant with items such as ball bearings and electric parts until the end of the month.

For the plan to be clear and serve effectively as an inviolable document regulating all production activities, rigid and technically sound norms, especially time-consumption norms, for all operations are necessary. These do not exist at the plant. Since the plant perfects more and more new designs of machines each month, the folly of this situation is apparent. In general, the

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plant's shops do not receive clear assignments from the Production Division for each month, or even for every 10 days. In addition, the staff of normsetters is completely inadequate and there is no research section in the Bureau of Normalization.

Is the Ministry of Machine Tool Building aware of this situation? Of course it is! Taranichev, deputy minister, calls a special meeting twice a month at which all grievances are taken into account. The results of the meeting are written into the record.

In general, an appearance of the ministry's operational help to the plant is maintained regularly. However, this is in appearance only. First, a large number of points included in the record are not taken care of within the specified time; and second, this is not the type of help needed by the plant. The basic system of planning and equipping the plant must be changed so that the planning activities do not consume the time needed for the preparation of production. Only in this way can the Plant imeni Ordzhonikidze eliminate lastminute speed-ups and their consequences.

Moscow, Moskovskaya Pravda, 7 Sep 51

One of the most important conditions for smooth shop operation, low cost of production, and good quality of products is the timely and careful planning of production.

It can be stated that the preparation of production at the Plant imeni Ordzhonikidze is not organized satisfactorily. Proof of this can be seen at any one of the plant's shops. Because these shortcomings are the same throughout, it can be concluded that they are not accidental but are the result of faulty leadership on the part of the plant management.

For example, the Division of the Chief Technologist is extremely late in issuing blueprints to the shops. Furthermore, once the shop receives the blueprints, it cannot immediately begin the manufacture of parts because it does not receive the technological data at the same time.

It is particularly important to note that the distribution among shops of the parts to be machined is purely mechanical. A part is sent to the shop where there are machine tools of suitable size, without regard for the actual load of these machine tools. No preliminary calculations of load are made. For this reason, only at the moment that a part is to be machined is it discovered that there is no machine on which to process it. For example, in September, shop No 13 had to machine parts for four machine tools on a vertical lathe. The volume of work would be 600 hours, that is, the load for three shifts in the course of one month. Without regard for this, the shop is given another job which would take 1,000 hours to be performed on this same machine. How can a load of 1,600 hours be taken care of if a calendar month has only 720 hours? This is the planners' secret.

With this type of distribution, identical parts are frequently processed in different shops. This splits up the batches, necessitates the setting up of several places for doing the same type of Job, and disperses the tool reserves.

On the other hand, sometimes the same part must travel among different shops. There is no need for this.

In individual production, technical data, particularly blueprints, plays an important role, because the worker, foremen, and inspector must constantly deal with unfamiliar items. At the plant, as a rule, assembly and sometimes

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installation bases are not shown in the blueprints. With the correction of errors discovered in blueprints, the situation still is not completely satisfactory. Sometimes changes actually made in parts are not incorporated in the blueprints for 2 or 3 months, or for an even longer period. For example, changes were made in the Model 9182 machine tool in 1950, yet not one of the blueprints put out by the Division of Technical Control was changed until 16 July 1951.

The issuing of data for the preparation of production is only the beginning. A more important matter is the supplying of shops with attachments, cutting and measuring tools, and materials. The situation here is even worse.

The fact is that the tool shop receives data simultaneously with the production shops and begins the manufacture of attachments and special tools while the machine shops begin to machine the parts. As a result, the production shops either have to manufacture attachments themselves in accordance with their own designs or to work without attachments, in a haphazard manner. Among the many examples are the Model MR-9 machine tools a number of which had been produced at the plant while the production shops had not yet received a significant portion of equipment. Because of this situation, parts for the MR-9 machine tool which could have been processed on ordinary drilling machines were machined on precision jig boring machines.

in the event that the tool shop does get the tools to the production shops in time, they are delivered in an unfinished state.

This is not the rault of the tool shop. It is the fault of the plant management for not organizing correct planning of shop work.

Assuming that in one way or another, the shop finally receives all data, necessary attachments, and tools, does this mean that it can now operate according to schedule? It does not, because the material supply at the plant is also in need of improvement.

In this connection, the shop has not yet received more than ten sizes of steel rouds, brands "20Kh," steel 15, steel 45, and others. For several months, the plant has been burdening the forge shop with the task of reforging rounds into strip and squares. Assembly workers still do no have dozens of types of ball bearings, lubricators, panels, etc., which they need to produce machine tools for the September program and to complement those which were not produced earlier.

Moscow, Moskovskaya Pravda, 13 Sep 51

Another reason for the lagging position of the Moscow Machine Tool Building Plant imeni Ordzhonikidze might be the large number of young and unskilled workers employed in the shops who have come directly from the trade schools. They are faced with problems of machining parts which only remotely resemble those used in their training programs. They receive little attention and instruction from skilled workers or foremen. Proper equipment is not provided for them, so that they run from one machine to another to perform their duties. A great deal of time is wasted waiting for tools, orders, etc. It is no wonder that production norms are not being fulfilled at the plant.

Another factor which contributes to the plant's backwardness is the long period of equipment standstill. This is the result of poor planning of equipment utilization, and time wasted by workers in settling down to work.

Because production and labor are poorly organized, because technology is not thought out sufficiently, and labor discipline is weak, the enterprise is failing to utilize two-thirds of its capacity.

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Moscow, Moskovskaya Pravda, 19 Sep 51

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Blagosklonov, director of the Moscow Machine Tool Building Plant imeni Ordzhonikidze, and his deputy Petrovskiy have not yet set up a clear, uninterrupted, and scheduled delivery of material and technical supplies to shops. For this reason, standstills at the plant amounted to 11,000 machine tool hours in the first 6 months of 1951.

However, this is not the greatest loss suffered as a result of poor supply. Even worse is the fact that because the delivery of items such as ball bearings, electrical equipment, pumps, etc., from other enterprises is not made on time, the workers, in order to fulfill their norms, process parts unrelated to machines needed by the rational economy.

A paradox results. Shop workers at the plant complain of inadquate supply, while the warehouse shelves are overloaded with materials unnecessary for plan fulfillment.

It is obvious that the trouble here is not the shortage of materials but poor organization of supply. The plant management and Glavenab of the Ministry of Machine Tool Building are responsible.

In an eff. t to investigate what is happening to the supply, it was found that although the plant is allotted adequate funds for the purchase of material, the office of Glevsnab does not release enough metal to the proper places at the right time. To make up the deficiency in quantity, the shops have to resort to substitutes, which means that they select any similar metal at the warehouse, disregarding the fact that it has been ordered for other purposes. In turn, the items for which these "substitutes" were allocated in the first place are left wanting. A frantic search for suitable metal, for the most part among neighboring plants, ensues. This entails the substitution not only of different brands of steel, but also of different sizes. As a result, strip steel is drawn out from square bars, shafts 23 millimeters in diameter are turned from 36-40 millimeter diameter bar stock, rings are made not from tube but bar stock, etc. The overexpenditures which result are obvious.

Plant workers are caused a great deal of unpleasantness by the unsatisfactory supply of cast parts by one of the basic suppliers, the Stankolit Plant. Month after month this plant has disrupted the supply schedule and failed to supply the full complement of parts. The Stankolit Plant management explains that overdue delivery of castings is the result of production difficulties. In some cases, the management is justified. However, how can the fact be explained that castings for Models 116, 118, 123, and other machine tools are not delivered on time, although the production of these castings has long since been mastered by the Stankolit Plant? For example, it fell short by more than 1,500 parts, of 83 type designations, for these machine tools.

It must be noted that the quality of castings has dropped also. Time and again the Plant imeni Ordzhonikidze must return parts to the Stankolit Plant for correction or recasting.

It must be pointed out that the Stankolit Plant is not the only offender in this matter. The machine tool plant management is no less to blame.

In the first place, the Division of Cooperation of the plant administration does not submit plans and patterns for parts to the Stankolit Plant on time.

Second, the manufacture of a considerable portion of cast parts (up to 300 kilograms in weight) is not the responsibility of the Stankolit Plant but of the Tula affiliate of the Plant imeni Ordzhonikidze. This enterprise is operating

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very poorly. Haphazard work methods are prevalent, and as a result poor-quality castings enter the machine tool plant shops. Measures have not been taken by the plant management to improve the situation at the Tula affiliate. This is the first step to improve the supply picture.

In additon, the Plant imeni Ordzhonikidze must dispose of a large quantity of material and castings manufactured for machine tools no longer in production. These materials only complicate the accounting, clutter up the warehouses, and freeze the working capital of the enterprise.

Moscow, Moskovskaya Pravda, 18 Dec 51

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The assembly of four heavy machine tools, Model 96183, which should have been manufactured by the Plant imeni Ordzhonikidze in 1950, has just been started. The reason is that the Stankolit Plant had not manufactured a bed for column to replace a defective one.

TAKE MEASURES TO CORRECT SHORTCOMINGS -- Moscow, Moskovskaya Pravda, 1 Dec 51

Karpov, chief of Glavstankoprom (Main Administration of Machine Tool Industry) of the Ministry of Machine Tool Euilding USSR has informed the editorial office of Moskovskaya Fravda that in the series of articles published in its paper the serious shortcomings existing at the Moscow Machine Tool Building Plant imagi Ordzhonikidze were correctly set forth.

A number of measures have been taken to eliminate these shortcomings, to improve the operation of the plant, and to ensure that it will fulfill its production program.

D. A. Ryzhkov, Deputy Minister of Machine Tool Building, has approved a schedule for drawing up blueprints for combination machine tools which is mandatory for the Design Bureau of the ministry. According to this schedule, on 1 January 1952, the plant will be supplied with 7-months' reserve of blueprints for combination machine tools as specified by the 1952 production plan.

To improve material and technical supply, the plant has been granted additional funds for metal. Auxiliary items such as motors, bearing, etc., will be made available to the plant at the beginning of each month.

To supply the enterprise with castings on time, the ministry has approved a monthly schedule for delivery of castings from the Stankolit Plant.

Measures have been worked out for improving the organization and planning of production. In particular, a preliminary monthly estimate of load of equipment according to types has been introduced; and a redistribution of parts among shops has been accomplished.

To improve the operating conditions of new machine tools being perfected, the ministry has compelled the design bureaus to design 300 attachments for the Plant imeni Ordzhonikidze.

To lower labor consumption and increase productivity, it has been suggested that the tool plants of one Ministry of Machine Tool Building manufacture 3,500,000 tools of 150 type designations.

For better standardization at the plant, a norm group has been organized to develop typical norms for parts frequently reproduced, as well as standardized units for combination machine tools.

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Moscov, Vechernyaya Moskva, 4 Feb 52

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In 1951, the Moscow Machine Tool Building Plant imeni Ordzhonikidze produced many new models of machine tools, and nine new automatic transfer machine lines.

However, it did not complete its plan in the number of machine tools produced.

Meetings of foremen, technologists, designers, planners, and economists have been held at the plant recently. The participants at the meeting revealed shortcomings in the operation of different sections. As a 1 wlt of these meetings, it was determined that the basic reasons for the plant's lagging position in 1951 were low labor productivity and lax discipline of workers in many sections. The managerial personnel of the plant, and party and trade union organizations did not give enough attention to the dissemination of experiences of outstanding Stakhanovites and to the enforcement of discipline.



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